(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



- 1 Marie 2007 D. D. Coloni (1917 Claim a 1918 State of 11 Marie 2007) Claim Coloni (1918 Claim a 1918 Claim a

(43) International Publication Date 2 December 2004 (02.12.2004)

(10) International Publication Number WO 2004/104931 A1

(51) International Patent Classification7: H04N 5/262

G06T 9/00,

(21) International Application Number:

PCT/US2004/009491

(22) International Filing Date: 30 March 2004 (30.03.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/470,712

15 May 2003 (15.05.2003) US

- (71) Applicant (for all designated States except US): THOM-SON LICENSING S.A. [FR/FR]; 46, Quai A. Le Gallo, F-92648 Boulogne (FR).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): GOMILA, Cristina [ES/US]; 25C Chestnut Court, Princeton, NJ 08540 (US). KOBILANSKY, Alexander [US/US]; 17 Seneca Road, Ossining, NY 10562 (US).
- (74) Agents: TRIPOLI, Joseph, S. et al.; THOMSON LI-CENSING INC., Two Independence Way, Suite #200, Princeton, NJ 08540 (US).

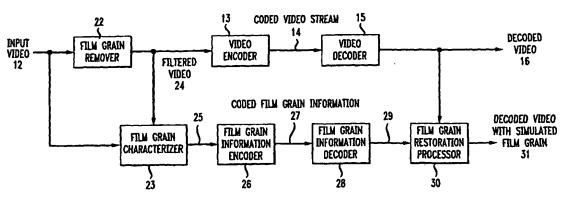
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND APPARATUS FOR REPRESENTING IMAGE GRANULARITY BY ONE OR MORE PARAME-**TERS**



(57) Abstract: To characterize film grain, a Film Grain Characterizer (23) receives an incoming information stream (12) and a filtered information stream (24) from which the film grain has been removed. From these streams, the Film Grain Characterizer (23) outputs a message that contains an identity of a model for simulating grain, as well at least one of a set of several parameters, including correlation parameters, intensity-independent parameters and intensity-dependent parameters used by the identified model. An encoder (26, 13) encodes the film grain information for subsequent transmission.

